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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,358	09/14/2004	Bradford Morse	WC 001	5357

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MEDLER FERRO PLLC
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SPRINGFIELD, VA 22153

EXAMINER

GUIDOTTI, LAURA COLE

ART UNIT	PAPER NUMBER
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1744

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/711,358

Applicant(s)

MORSE ET AL.

Examiner

Laura C. Guidotti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9,11,17 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9,11,17 and 19-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1-9, 11, 17, and 19-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In the Applicant's original drawings and disclosure there is no support found that "said motion having a random path *determined solely by obstacles encountered by the drive unit*" (Claims 1, 17, and 19 Lines 3-4). Therefore Claims 1-9, 11, 17, and 19-24 contain new matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1, 3, 11, 17, 19, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aasen, WO 02/39864 in view of Graham et al., US 2001/0047559.

Aasen discloses the claimed invention including a drive unit (14, including 12 which has a driving gear, Page 3 Lines 27-30) having an outer surface (Figures 1, 2, 5) and a motorized internal mechanism (the driving gear, Page 3 Lines 27-30) adapted to impart a tumbling motion to the drive unit (12; Page 5 Lines 15-35), the motion having a random path determined by obstacles encountered by the drive unit (Page 5 Lines 15-29, Page 6 Lines 18-20), a disposable cleaning sheet (30; Page 7 Lines 15-17, 27-30; the sheet is removable via Velcro® fasteners and therefore capable of being disposed of) having a first and second side (see Figures 2 and 5), wherein the sheet is a formed sheet (Page 9 Lines 24-33, the sheet is "formed"), wherein the drive unit imparts tumbling motion to the sheet (capable about imparting a rotary motion about a vertical axis; Page 5 Lines 15-29) (claims 1 and 19). Regarding claim 3, the sheet partially encompasses the drive unit (see Figures 2 and 5; Page 8 Lines 25-27). Regarding claims 11 and 21, the sheet includes at least one appendage extending therefrom (the corners from a square cloth or the extended cloth, Page 8 Lines 12-23). Regarding claim 17, the method of making the cleaner includes obtaining the drive unit having a motorized internal mechanism and providing a sheet for use with the drive unit (Page 6

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Lines 1-23, Page 7 Lines 5-10). Regarding claims 22-24, the drive unit is controlled without human intervention (as the drive unit includes a drive gear that does not operate with human intervention, Page 2 Line 29 to Page 3 Line 3, Page 5 Lines 15-35). Aasen does not disclose that the sheet is constructed for a snug fit without the use of adhesives or fasteners as it uses Velcro® fasteners (18, 26).

Graham et al. teach a device having a cleaning sheet (18) that attaches snugly to a main unit (16, 17) that is driven (via handle 11) wherein the sheet is a "formed sheet" (18) constructed for a snug fit to a main unit without the use of adhesives or fasteners (as it includes an elastic element 19; paragraph 25) so that a user can easily remove the cover from the main unit (paragraph 25).

It would have been obvious for one of ordinary skill in the art to modify the device by not using Velcro® fasteners of Aasen so that the sheet is constructed (with elastic) for a snug unit without using adhesives or fasteners, as Graham et al. teaches, so that a user can easily remove the sheet from a main driving unit.

3. Claims 1, 2, 4-5, 17, 19, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ussen, USPN 6,550,089 in view of Merrill et al., US 3,722,134.

Ussen discloses the claimed invention including a drive unit (9; the device guides itself under the influence of a signal from a remote control, the device drives itself according to the signal from the remote control; the device is capable of guiding itself by deflecting off objects, corners, or obstacles as it may bounce away from those surfaces; the drive unit's internal mechanism is actually the portion receiving the remote control and guides the unit 9) having an outer surface (Figure 4) and a motorized internal

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mechanism adapted to impart "tumbling" motion to the drive unit (1; Column 2 Line 67 to Column 3 Line 2), a disposable cleaning sheet (10; Column 3 Line 44 states that the sheet/cover is removable and therefore capable of being disposed of) having a first and second side (see Figure 4), wherein the sheet is a formed sheet (10, the sheet is "formed") constructed for and capable of having a snug fit to the drive unit without the use of adhesives or fasteners (as it is elastic, Column 3 Lines 44-46), wherein the drive unit to impart rotary motion to the sheet (Column 3 Lines 43-46; Figure 4) (claims 1 and 19). Regarding claim 2, the sheet completely encompasses the drive unit (as it is made of two hemispheres, Column 3 Lines 43-46). Regarding claim 4, the outer surface of the drive unit is substantially spherical (Column 3 Line 43; Figure 4). Regarding claim 10, the sheet is directly connected to the drive unit (Figure 4). Regarding claim 17, the method of making the cleaner includes obtaining the drive unit having a motorized internal mechanism and providing a sheet for use with the drive unit (Column 3 Lines 43-46). The motorized internal mechanism of Ussen includes a remote controlled receiver within the sphere that appears to be a wheeled toy vehicle (Figure 4; Column 3 Lines 40-50), and the motion does not include a random path determined solely by obstacles encountered by the drive unit.

Merrill et al. teaches a similar drive unit that has a spherical outer surface (outer surface of 10) and a motorized internal mechanism (16) that is adapted to impart a tumbling motion to the drive unit, the motion having a random path determined solely by obstacles encountered by the drive unit (Column 1 Lines 65-68; Column 2 Lines 51-57; Column 3 Lines 27-29). This drive system and motion allows the device to easily

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change direction (Column 1 Lines 22-31). Regarding claim 5, the shape of the outer surface of the drive unit may be ellipsoidal (elliptical, Column 3 Lines 14-17). Regarding claims 22-24, the motion of the drive unit is controlled without human intervention (Column 2 Line 58 to Column 3 Line 6).

It would have been obvious for one of ordinary skill in the art to substitute the motorized internal mechanism of Ussen, for one that imparts a tumbling motion to the drive unit, wherein the motion has a random path determined solely by obstacles encountered by the drive unit, as Merrill et al. teach, so that the device may change directions easily when it encounters an obstacle and does not require human interaction.

4. Claims 3 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ussen, USPN 6,550,089 and Merrill et al., US 3,722,134 as applied to claim 1, in view of Sohmer, USPN 3,742,547.

Ussen and Merrill et al. disclose all elements mentioned above. Ussen further includes an embodiment (Figures 1-3b) including a cylindrical shaped drive unit (5) having an outer surface (see Figures 1-3b) and a motorized internal mechanism adapted to impart rotary motion to the drive unit (1; Column 2 Line 67 to Column 3 Line 2). In regards to claim 2, Ussen does disclose that the drive unit surface is sticky (Column 3 Lines 20-25, 40-42) so inherently the drive unit has an entire surface that is sticky. Regarding claim 6, the shape of the outer surface of the drive unit is at least substantially cylindrical see Figures 1-3b). Ussen states that drive unit (5) has a sticky surface (Column 3 Lines 20-25, 40-42), however does not disclose that there is a sheet

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having a first side and a second side that is connected to partial portions of the outer surface of a cylindrical shaped drive unit.

Sohmer discloses a lint sweeper (10) for cleaning floors and carpets using an adhesive surface (25) on a cylindrical roller or drive unit (23) for removing lint and dust (Column 1 Lines 39-42). The adhesive surface of Sohmer is a sheet having a first and second side (the adhesive surface or layer or tape 25 has a first and second side; Figures 2-3b) so that after the adhesive cleaning surface is contaminated with debris, a user can remove a used portion and provide an unused portion (Column 2 Lines 48-56). The sheet (25) only partially encompasses the drive unit (23; Figure 2).

It would have been obvious for one of ordinary skill in the art to substitute the sticky cylindrical drive unit of Ussen and Merrill et al. for a cylindrical drive unit that has an adhesive sheet with first and second sides that is connected to the outer surface of the drive unit, as Sohmer teaches, so that a user may remove debris-contaminated sheets and provide unused cleaning sheets when cleaning. Also, it would have been obvious for one of ordinary skill in the art to modify the outer surface of Ussen and Merrill et al. so that the adhesive cleaning sheet portion is only partially encompassing the drive unit, as Sohmer teaches, so that only the surface rotary contact with the floor includes the cleaning sheet and material is not wasted on side portions that do not serve as cleaning surfaces.

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ussen, USPN 6,550,089 and Merrill et al., US 3,722,134 as applied to claim 2, in view of Aasen, WO 02/39864.

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Ussen, Merrill et al., and Aasen disclose all elements mentioned above. Ussen and Merrill et al. do not disclose that the sheet includes at least one appendage extending therefrom. Aasen teaches that attachable dust cloths may include cloth extensions or corners on a self-driven cleaning device for cleaning more effectively along walls and in corners (Page 8 Line 12-23).

It is also well known to place mop strands about a core for cleaning, as most mops include. It would have been obvious for one of ordinary skill in the art to modify the outer surface of Ussen and Merrill et al. to include an appendage extending therefrom, as Aasen teaches or as most mops include, in order to clean within corners and along wall surfaces.

Response to Arguments

6. Applicant's arguments filed 18 January 2007 have been fully considered but they are not persuasive.

Regarding Aasen, the motorized internal mechanism is the driving gear (not shown). This internal mechanism does in fact impart a tumbling motion about a vertical axis. Aasen also includes a random path as well (see above rejection, Page 3 Lines 27-30, Page 5 Lines 15-29, Page 6 Lines 18-20).

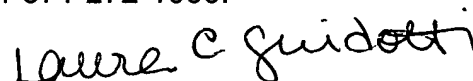
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Guidotti whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Laura C Guidotti
Patent Examiner
Art Unit 1744

lcg